APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,234	11/17/2001	Ravi Chandra	4906.P094	4890

			EXAMINER
8791	7590	06/20/2006	DIVECHA, KAMAL B

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2151	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/991,234	CHANDRA ET AL.
	Examiner	Art Unit
	KAMAL B. DIVECHA	2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05/19/06</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-9 and 23-33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-9 and 23-33</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Response to Arguments

Claims 1-9, 23-33 are pending in this application.

Applicant's arguments filed May 19, 2006 have been fully considered but they are not persuasive.

Applicant in response filed, argues in substance that:

a.   "Independent claim 1 requires maintaining within a single network element of a backbone (rather than a public Internet) multiple contexts, each corresponding to a distinctive customer accessing the backbone. Each context includes sufficient information to establish a VPN connection for the associated customer without having to use information of other contexts of other customers. As a result, there is a sufficient isolation among the customers and the management of the VPN connections can be efficiently managed and quickly establish. Although Rekhtar discloses maintain information for different VPNS, such information is maintained based on specific VPN, rather than based on customers as required by claim 1. Even though Rekhtar and the present invention as claimed are achieving similar goal of establishing VPNS; however, the ways to maintain and manage information between Rekhtar and the present invention as claimed are significantly different. In order to anticipate a claim, each and every limitation of the claim must be taught by the cited reference. It is respectfully submitted that Rekhtar fails to disclose each and every limitations of claim 1 set forth above (remarks, page 12)".

In response to argument [a] above, Examiner respectfully disagrees in light of the following:

Applicant expressly admitted that Rekhtar discloses maintaining information for different

VPN's, such information is maintained based on specific VPN, rather than based on customers.

First, claims do not teach that such information is maintained based on customers.

Secondly, Rekhtar explicitly teaches:

Column 9 lines 27-44 of Rekhter states:

"...A normal Internet router maintains only one FIB table. But routers
in a provider of connections for many enterprises' peer-model VPNs need
different tables for different VPNs, because a router may need to distinguish
between potentially identical prefixes in different VPNs. (Each SP router
also needs to maintain a general, i.e., non-VPN-specific, FIB. Unless
explicitly stated otherwise, references below to the FIB mean the general
FIB.) In accordance with the present invention's teachings, though? transit
routers, i.e., routers that are not directly attached to customer's VPN, do
not need to maintain VPN-specific FIBs. (We consider a PE router to be
"directly attached" to a particular VPN if it is directly attached to a CE
router in that VPN.) And an edge router such as PE1 or PE2 needs to maintain,
in addition to a general FIB, a separate FIB only for each VPN to which it is
connected directly. The reason why this is so will become apparent as the
description proceeds..."

Rekhter explicitly teaches that each service provider's router needs to **maintain a**

general, i.e. non-VPN specific FIB in addition to the VPN-specific FIB.

Therefore it is unclear as to "how the ways to maintain and manage information" between

Rekhtar and the present invention as claimed are different, as argued by the applicant.

Hence, Rekhtar discloses explicitly each and every limitation of the claim and as such,

anticipates the present claimed invention.

According to the applicant, the following subject matter is notorious (i.e. well known) and old in the relevant art as evidenced by information disclosure statement received on October 21, 2005.

- Layer 3 VPN as evidenced by RFC 2547 (remarks, page 10).

- Exterior gateway protocol as evidenced by RFC 911 (remarks, page 14).

- Border Gateway protocol as evidenced by RFC 2547 (remarks, page 10), which carries a date of March 1999 and August 1984, prior to applicants effective filing date.

Therefore, technically speaking, the subject matter, i.e. layer 3 VPN, EGP table, IGP table, maintaining and managing information, etc., disclosed by applicant's claims, were well known in the relevant art, prior of the filing of the instant application, as evidenced by the information disclosure statement submitted on October 21, 2005.

For the at least reasons set forth above, the rejection is maintained.

DETAILED ACTION

Specification

The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to

adequately teach how to make and use the invention, i.e., failing to provide an enabling

disclosure.

The test to be applied under the written description portion of 35 U.S.C. § 112, first

paragraph, is whether the disclosure of the application as originally filed reasonably conveys to

the artisan that the inventor had possession at that time of later claimed subject matter. Vas-Cat,

Inc. v. Mahurkar, 935 F. 2d 1555, 1565, 19 USPQ2d 111, 1118 (Fed. Cir. 1991), reh'rg denied

(Fed. Cir. July 8, 1991) and reh'rg, en banc, denied (Fed. Cir. July 29, 1991).

The applicants have failed to provide an enabling disclosure in the detailed description of

the embodiment. The specification is objected to under 35 U.S.C. § 112, first paragraph, as

failing to support the subject matter set forth in these claims.

The claims recite "establishing a layer 3 VPN to the first customer **based upon**

information maintained within the first context without using information of the second

context" and "**establishing a non-VPN access to a backbone to a second customer based**

upon information maintained within the second context without using information of the

first context".

However applicant specification merely teaches (paragraph [0023]):

[0023] "The VPN context 109A includes information and/or data structures for the VPN

A. Traffic received from the VPN A site 101A is processed in accordance with the APN context

109A. The VPN context 109B includes information and/or data structures for the VPN B. Traffic

received from the VPN B site 103A is processed in accordance with the VPN context 109B.

Traffic is transmitted between the VPN A sites 101A and 101B in accordance with the VPN

context 109A. Traffic is transmitted between the VPN B sites 103A and 103B in accordance with

the VPN context 109B. Traffic received from the service provider network element 106 is

processed in accordance with the context 107A".

Further there is no whatsoever any teaching and/or suggestion that would indicate the

process of establishing a layer 3 VPN to the first customer **based upon information maintained**

within the first context without using information of the second context" and **"establishing**

a non-VPN access to a backbone to a second customer based upon information maintained

within the second context without using information of the first context".

As such, the above claim limitations presents subject matter which was not described in

the specification in such a way as to reasonably convey to one skilled in the relevant art that the

inventor(s), at the time the was filed, had possession of the claimed invention.

Claim Objections

The claims are objected to because they include reference characters: for example:

Phrases such as VPN, EGP, IGP, RD, etc., such acronyms <u>should be spelled in its entire form</u> in

order to avoid confusion with other terminology.

Claim Rejections - 35 USC § 112

The following is a quotation of the **first paragraph of 35 U.S.C. 112:**

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1.   Claims 1-5 are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2.   Claims 1-9 and 23-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 23-33 are non-statutory because specification is evidenced to define the "machine-readable medium" to include read only memory, random access memory, magnetic disk storage media, optical storage media, flash memory devices, electrical, optical, acoustical, or other form of propagated signals (e.g. carrier waves, infrared signals, digital signals, etc.), which does not fall within any of the four classes and/or categories of patentable subject matter set forth in 35 U. S. C. § 101.

Claims that recite nothing but the physical characteristics of a form of energy, such as frequency, voltage or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U. S. (15 How.) at 112-14.

Claims 1-9, 23-33 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. Claims simply fail to disclose the utility of the claimed invention.

Secondly, a computer implemented method or the propagated signals which "when"

executed does not provide any useful, concrete and tangible results of the subject matter set forth

in claims 1-9 and 23-33. A result is useful if it has specific, substantial and credible utility. The

claimed invention of claims 6-9 and 23-33 can be done using paper, pencil and a machine.

Therefore, for the at least reasons set forth above, the claims are non-statutory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-9 and 23-33 are rejected under 35 U.S.C. 102(e) as being anticipated by

Rekhtar et al. (hereinafter Rekhtar, U. S. Patent No. 6,339,595 B1).

As per claim 1, Rekhtar discloses a method comprising: maintaining on a single network

element of a backbone provided by a network provider a plurality of contexts, each

corresponding to a customer accessing the backbone, each context having sufficient information

to establish a network connection for the corresponding customer to access other network

elements of the backbone, wherein the plurality of contexts includes a first context for the first

customer and a second context for the second customer different than the first customer (col. 4

L34-44, col. 6 L41-50) wherein the first and second contexts enable isolation of traffic processed

between the first and second customers in the single network element (col. 3 L45-56, col. 18

L39-57); establishing a layer 3 virtual private network to a first customer based upon information

maintained within the first context without using information of the second context (fig. 1 and fig. 9, col. 6 L14-41, col. 21 L49 to col. 22 L49, col. 62 L55-67); and establishing non-VPN access to a backbone to a second customer based upon information maintained within the second context without using information of the first context (fig. 1, fig. 9, col. 9 L28-44 and col. 3 L45-56, col. 18 L39-57, col. 26 L30-67).

As per claim 2, Rekhtar discloses the process wherein the first context includes configuration information for the layer 3 VPN and the second context includes configuration information for the second customer (col. 6 L41-50).

As per claim 3, Rekhtar discloses the process wherein the first context includes routing information for the layer 3 VPN and the second context includes routing information for the second customer (col. 6 L29-50).

As per claim 4, Rekhtar discloses the process of maintaining on the network element a set of non-VPN related information for the first customer (col. 9 L28-35).

As per claim 5, Rekhtar discloses the process of providing a second layer 3 VPN to a third customer (fig. 1); maintaining on the single network element a third context for the second layer 3 VPN (col. 6 L43-50, col. 9 L23-44); and maintaining a single exterior gateway protocol process table for the first layer 3 VPN and the second layer 3 VPN (col. 11 L14-18).

As per claim 6, Rekhtar discloses a computer implemented method comprising: maintaining a first context for a first layer 3 VPN, the first context including a first value identifying the first layer 3 VPN (col. 18 L28 to col. 19 L60, col. 20 L60-62); separately maintaining a second context for a second layer 3 VPN, the second context including a second value identifying the second layer 3 VPN, wherein the first and second sets of information

corresponds to a first and second customers accessing a backbone and maintained within a single

network element of the backbone, and wherein the first and second sets of information include

sufficient information to establish the first and second layer 3 VPNs with other network elements

of the backbone for the first and second customer respectively (col. 18 L28 to col. 20 L4);

associating the first value with a first route distinguisher (col. 19 L52-56); associating the second

value with a second route distinguisher (col. 18 L12 to col. 19 L4); maintaining a single EGP

table for the first and second layer 3 VPNs (col. 11 L13-18).

As per claim 7, Rekhtar discloses the process of separately maintaining a third context for

a non-VPN customer, the third context including a third value identifying the non-VPN customer

(col. 9 L32-62) and maintaining a second EGP table for the non-VPN customer (col. 9 L32-44

and col. 11 L15-18).

As per claim 8, Rekhtar discloses the process of maintaining a first routing table for the

first layer 3 VPN (col. 4 L34-38, col. 8 L56-67); maintaining a second routing table for the

second layer 3 VPN (col. 6 L41-50, col. 9 L28-44); updating a set of entries for the first layer 3

VPN in the single EGP table, each of the set of entries indicating the first route distinguisher

(col. 11 L5-60 and col. 16 L5-33); mapping the first route distinguisher to the first value (col. 18

L12-67) and indicating the mapped first value in communication about the updated set of entries

(col. 19 L5-67, col. 12 L65-67, col. 19 L61 to col. 20 L4).

As per claim 9, Rekhtar discloses the process of maintaining a data structure for the

single EGP table, the data structure indicating the association between the first value and the first

route distinguisher and between the second value and the second route distinguisher (col. 19 L5

to col. 20 L32, col. 8 L56 to col. 9 L51) and performing mappings between the first value and the

first route distinguisher and between the second value and the second route distinguisher with the data structure (col. 11 L45-59, col. 12 L65 to col. 13 L35, col. 18 L58-67, col. 19 L52-56).

As per claim 25, Rekhtar discloses the process wherein the mappings are performed for communications about the single EGP table (col. 19 L5 to col. 20 L3).

As per claims 23-24, 26-33, they do not teach or further define over the limitations in claims 1-9, 25. Therefore, claims 23-24, 26-33 are rejected for the same reasons as set forth in claims 1-9, 25.

Additional References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a.   Arrow et al., U. S. Patent No. 6,226,751 B1.

b.   Tabata, Pub. No.: US 2001/0016914 A1.

c.   Rekhtar et al., U. S. Patent No. 6,526,056 B1.

d.   Rekhtar et al., U. S. Patent No. 6,463,061 B1.

e.   Cheline et al., Pub. No.: US 2003/0041136 A1.

f.   Gonda et al., U. S. Patent No. 6,662,221 B1.

g.   Branigan et al., Pub. No.: US 2002/0090089 A1.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMAL B. DIVECHA whose telephone number is 571-272-5863. The examiner can normally be reached on Increased Flex Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kamal Divecha
Art Unit 2151
June 13, 2006.

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SUPERVISORY PATENT EXAMINER